FINAL DRAFT/PROPOSED CAAPP PERMIT Cook County Hospital I.D. No.: 031600AWX

Application No.: 96080076 October 9, 2003

217/782-2113

TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT and  ${\tt TITLE~I~PERMIT}^1$ 

## PERMITTEE

Cook County Hospital Attn: Jack Callaghan 1835 West Harrison Street Chicago, Il 60612-9885

Application No.: 96080076 I.D. No.: 031600AWX

Applicant's Designation: Date Received: August 21, 1996

Applicant's Designation:
Operation of: Steam Generation

Date Issued: TO BE DETERMINED Expiration Date<sup>2</sup>: DATE

Source Location: 1835 West Harrison Street, Chicago, Cook, Illinois 60612-9885

Responsible Official: John Alsterda, Associate Administrator

This permit is hereby granted to the above-designated Permittee to OPERATE a steam power generation plant, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

If you have any questions concerning this permit, please contact Ross Cooper at 217/782-2113.

Donald E. Sutton, P.E. Manager, Permit Section Division of Air Pollution Control

DES:RWC:JRC:jar

cc: Illinois EPA, FOS, Region 1 CES

Lotus Notes

This permit may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the CAA and regulations promulgated thereunder, including 40 CFR 52.21 - federal PSD and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within this permit.

Except as provided in Condition 8.7 of this permit.

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#### 1.0 SOURCE IDENTIFICATION

## 1.1 Source

Cook County Hospital Power House 1835 West Harrison Street Chicago, Illinois 60612-9885 312/633-6437

I.D. No.: 031600AWX

Acid Rain Permit ORIS Code No.: N/A

Standard Industrial Classification: 8062, General Medical and Surgical Hospitals

# 1.2 Owner/Parent Company

Cook County Hospital 1835 West Harrison Street Chicago, Illinois 60612-9885

# 1.3 Operator

Cook County Hospital 1835 West Harrison Street Chicago, Illinois 60612-9885

Jack Callaghan/Chief Engineer
312/633-6437

## 1.4 General Source Description

Cook County Hospital is located at 1835 West Harrison Street, and the John Stroger, Jr., Hospital of Cook County is located at 1901 West Harrison. The source utilizes ten natural gas and oil fired boilers to generate steam, as well as five distillate fuel oil engines for emergency backup power, and three Ethylene Oxide Sterilizers (ETO) for medical sterilization.

# 2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

ACMA	Alternative Compliance Market Account	
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]	
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1,	
	Stationary Point and Other Sources (and Supplements A	
	through F), USEPA, Office of Air Quality Planning and	
	Standards, Research Triangle Park, NC 27711	
ATU	Allotment Trading Unit	
BAT	Best Available Technology	
Btu	British thermal unit	
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]	
CAAPP	Clean Air Act Permit Program	
CAM	Compliance Assurance Monitoring	
CFR	Code of Federal Regulations	
ERMS	Emissions Reduction Market System	
HAP	Hazardous Air Pollutant	
hr	hour	
IAC	Illinois Administrative Code	
I.D. No.	Identification Number of Source, assigned by Illinois EPA	
ILCS	Illinois Compiled Statutes	
Illinois EPA	Illinois Environmental Protection Agency	
kW	kilowatts	
LAER	Lowest Achievable Emission Rate	
lb	pound	
MACT	Maximum Achievable Control Technology	
mmBtu	Million British thermal units	
NESHAP	National Emission Standards for Hazardous Air Pollutants	
NO <sub>x</sub>	Nitrogen Oxides	
NSPS	New Source Performance Standards	
PM	Particulate Matter	
PM <sub>10</sub>	Particulate matter with an aerodynamic diameter less than or	
	equal to a nominal 10 microns as measured by applicable test	
	or monitoring methods	
ppm	parts per million	
PSD	Prevention of Significant Deterioration	
RMP	Risk Management Plan	
SO <sub>2</sub>	Sulfur Dioxide	
T1	Title I - identifies Title I conditions that have been	
	carried over from an existing permit	
T1N	Title I New - identifies Title I conditions that are being	
	established in this permit	
T1R	Title I Revised - identifies Title I conditions that have	
	been carried over from an existing permit and subsequent	
	revised in this permit	
USEPA	United States Environmental Protection Agency	
MOV	Volatile Organic Material	

#### 3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

> Number 2 Fuel Oil Tanks Number 6 Fuel Oil Tank

3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

None

3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

None

- 3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).
- 3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 218.182.
- 3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.
- 3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 218.182, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

- 3.3 Addition of Insignificant Activities
  - 3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).
  - 3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.
  - 3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

# 4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission		Date	Emission Control
Unit	Description	Constructed	Equipment
B1	Natural Gas Fired Boiler with Fuel Oil Backup (84.5 mmBtu/Hr)	01/1997	Low NO <sub>x</sub> Burners
B2	Natural Gas Fired Boiler with Fuel Oil Backup (84.5 mmBtu/Hr)	01/1997	Low NO <sub>x</sub> Burners
В4	Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)	2001	Low NO <sub>x</sub> Burners
B5	Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)	2001	Low NO <sub>x</sub> Burners
В6	Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)	2001	Low NO <sub>x</sub> Burners
В7	Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)	2001	Low NO <sub>x</sub> Burners
В8	Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)	2001	Low NO <sub>x</sub> Burners
В9	Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)	2001	Low NO <sub>x</sub> Burners
B10	Natural Gas Fired Boiler (12 mmBtu/Hr)	2003	None
CHILL1	Natural Gas Fired Chiller (12.0 mmBtu/Hr)	2003	None
В3	Natural Gas Fired Boiler with Fuel Oil Backup (83 mmBtu/Hr)	1959	None
ICE 1-5	2000 KW Fuel Oil Fired Engine	2001	None
ETO1-3	Ethylene Oxide Sterilizers	2001	ETO Abator

#### 5.0 OVERALL SOURCE CONDITIONS

- 5.1 Source Description
  - 5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of emissions.
  - 5.1.2 This permit is issued based on the source not being a major source of HAPs.

# 5.2 Applicable Regulations

- 5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.
- 5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:
  - a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.
  - b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.
- 5.2.3 Fugitive Particulate Matter Operating Program

  Not applicable to this permit.
- 5.2.4 Ozone Depleting Substances

The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

# 5.2.5 Risk Management Plan

Should this stationary source pursuant to 40 CFR 68.215(a)(2)(i) and (ii), as defined in 40 CFR 68.3, become subject to the federal rules for Chemical Accident Prevention in 40 CFR Part 68, then the owner or operator shall submit:

- a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
- b. A certification statement that the source is in compliance with all applicable requirements of 40 CFR Part 68, including the registration and submission of the RMP, as part of the annual compliance certification required by Condition 9.8.
- 5.2.6 a. Should this source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC Subtitle B after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by Condition 9.8.
  - b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC Subtitle B that was promulgated after the date issued of this permit.

#### 5.2.7 Episode Action Plan

- a. If the source is required to have an episode action plan pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.
- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.

- c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.
- d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to:
  - i. Illinois EPA, Compliance Section.
  - ii. For sources located within the city of Chicago: Chicago Department of Environmental Control.
- 5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

None

- 5.5 Source-Wide Emission Limitations
  - 5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the purpose of establishing fees and are not federally enforceable.

# Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	_
Sulfur Dioxide (SO <sub>2</sub> )	.061
Particulate Matter (PM)	6.97
Nitrogen Oxides (NO <sub>x</sub> )	158.22
HAP, not included in VOM or PM	-
Total	165.25

Note:

The above permitted emissions are based upon the most recent information as submitted in the application and available to the Illinois EPA at the time of notice of this permit. These emissions will change based upon additional information which has been requested by IEPA and which the source is assembling during the public comment period.

## 5.5.2 Emissions of Hazardous Air Pollutants

This permit is issued based on the emissions of HAPs as listed in Section 112(b) of the CAA not being equal to or exceeding 10 tons per year of a single HAP or 25 tons per year of any combination of such HAPs, so that this source is considered a minor source for HAPs.

#### 5.5.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to either the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, Illinois EPA rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203, or Section 502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

## 5.6 General Recordkeeping Requirements

# 5.6.1 Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.

## 5.6.2 Records for Operating Scenarios

N/A

# 5.6.3 Retention and Availability of Records

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in

response to an Illinois EPA or USEPA request for records during the course of a source inspection.

- 5.7 General Reporting Requirements
  - 5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year.

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

- 5.9 General Compliance Procedures
  - 5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and Compliance Procedures in Section 7 (Unit Specific Conditions) of this permit.

#### 6.0 EMISSIONS CONTROL PROGRAMS

## 6.1 Emissions Reduction Market System (ERMS)

## 6.1.1 Description of ERMS

The ERMS is a "cap and trade" market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as required by Section 182(c) of the CAA.

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. Participating sources must hold "allotment trading units" (ATUs) for their actual seasonal VOM emissions. Each year participating sources are issued ATUs based on allotments set in the sources' CAAPP permits. These allotments are established from historical VOM emissions or "baseline emissions" lowered to provide the emissions reductions from stationary sources required for reasonable further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source shall have sufficient ATUs in its transaction account to cover its actual VOM emissions during the preceding season. A transaction account's balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the transaction account database. The Illinois EPA will then retire ATUs in sources' transaction accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its transaction account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

In addition to receiving ATUs pursuant to their allotments, participating sources may also obtain ATUs from the market, including ATUs bought from other participating sources and general participants in the ERMS that hold ATUs (35 IAC 205.630) and ATUs issued by the Illinois EPA as a consequence of VOM emissions reductions from an Emissions Reduction Generator or an Intersector Transaction (35 IAC 205.500 and 35 IAC 205.510). During the reconciliation period, sources may also buy ATUs from a secondary reserve of ATUs managed by the Illinois EPA, the "Alternative Compliance Market Account" (ACMA) (35 IAC 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 IAC 205.630).

# Explanation:

This draft permit contains three approaches to addressing the requirements of the Emission Reduction Market System (ERMS), 35 IAC Part 205. In Option 1, the source is not a participating source under ERMS because its actual VOM emissions are less than 10 tons per season. In Option 2, the source is not a participating source because VOM emissions are limited to less than 15 tons per season. In Option 3, the source is a participating source. The issued permit will include only the appropriate option based on the VOM emission information that the source is assembling during the public comment period. The Illinois EPA could not determine the appropriate approach when the draft permit was distributed for public review and comment because the Permittee had not completed a review of the future VOM emissions from the source, including the new John Stroger, Jr., Hospital of Cook County, during the seasonal allotment trading period, May through September of each year.

# Option 1: VOM Emissions Less Than 10 Tons Per Season

# 6.1.2 Applicability

This permit is issued based on this source not being a participating source in the Emissions Reduction Market System (ERMS), 35 IAC Part 205, pursuant to 35 IAC 205.200. This is based on the source's actual VOM emissions during the seasonal allotment period from May 1 through September 30 of each year being less than 10 tons and the source's baseline emissions also being less than 10 tons.

## 6.1.3 Recordkeeping and Reporting

- a. The Permittee shall maintain the following records to allow the confirmation of actual VOM emissions during the seasonal allotment period:
  - i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as specified in Sections 5 and 7 of this permit, as appropriate, to determine actual VOM emissions during the seasonal allotment period;
  - ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures specified in Sections 5 and 7 of this permit; and
  - iii. Total VOM emissions from the source, in tons, during each seasonal allotment period, which shall be compiled by November 30 of each year.

b. In the event that the source's VOM emissions during the seasonal allotment period equal or exceed 10 tons, the source shall become a participating source in the ERMS and beginning with the following seasonal allotment period, shall comply with 35 IAC Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period, unless the source obtains exemption from the ERMS by operating with seasonal VOM emissions of no more than 15 tons pursuant to a limitation applied for and established in its CAAPP permit.

# Option 2: VOM Emissions Less Than 15 Tons Per Season

#### 6.2.1 Description of ERMS

The ERMS is a "cap and trade" market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as required by Section 182(c) of the CAA.

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. Once the ERMS begins, participating sources must hold "allotment trading units" (ATUs) for their actual seasonal VOM emissions. Each year participating sources are issued ATUs based on allotments set during initial issuance of the sources' CAAPP permits. These allotments are established from historical VOM emissions or "baseline emissions" lowered to provide the emissions reductions from stationary sources required for reasonable further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source should have sufficient ATUs in its transaction account to cover its actual VOM emissions during the preceding season. A transaction account's balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the transaction account database. The Illinois EPA will then retire ATUs in sources' transaction accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its transaction account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

In addition to receiving ATUs pursuant to their allotments, participating sources may also obtain ATUs from the market, including ATUs bought from other participating sources and general participants in the ERMS that hold ATUs (35 IAC 205.630) and ATUs issued by the

Illinois EPA as a consequence of VOM emissions reductions from an Emissions Reduction Generator or an Intersector Transaction (35 IAC 205.500 and 35 IAC 205.510). During the reconciliation period, sources may also buy ATUs from a secondary reserve of ATUs managed by the Illinois EPA, the "Alternative Compliance Market Account" (ACMA) (35 IAC 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 IAC 205.630).

# 6.2.2 Applicability

Emissions of VOM from the source during the seasonal allotment period from May 1 through September 30 of each year shall not exceed 15 tons, not including VOM emissions from insignificant emission units and activities as identified in Section 3 of this permit. This limitation is established at the request of the source to exempt it from the requirements of 35 IAC Part 205, Emissions Reduction Market System (ERMS), pursuant to 35 IAC 205.205.

## 6.2.3 Recordkeeping and Reporting

- a. The Permittee shall maintain the following records to determine compliance with the above limitation:
  - i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as specified in Sections 5 and 7 of this permit, as appropriate, to determine actual VOM emissions during the seasonal allotment period;
  - ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures specified in Sections 5 and 7 of this permit; and
  - iii. Total VOM emissions from the source, in tons, during each seasonal allotment period.
- b. The Permittee shall submit the seasonal emissions component of the Annual Emissions Report by November 30 of each year, reporting actual emissions of VOM during the seasonal allotment period, in accordance with 35 IAC 205.205(b) and 35 IAC 205.300.
- c. In the event that the source's VOM emissions during the seasonal allotment period exceed 15 tons, the source shall no longer be exempt from the ERMS and beginning with the following seasonal allotment period, shall comply with 35 IAC Part 205, by holding

allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period.

#### Option 3: Participating Source

#### 6.3.1 Description of ERMS

The ERMS is a "cap and trade" market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as required by Section 182(c) of the CAA.

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. Participating sources must hold "allotment trading units" (ATUs) for their actual seasonal VOM emissions. Each year participating sources are issued ATUs based on allotments set in the sources' CAAPP permits. These allotments are established from historical VOM emissions or "baseline emissions" lowered to provide the emissions reductions from stationary sources required for reasonable further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source shall have sufficient ATUs in its transaction account to cover its actual VOM emissions during the preceding season. A transaction account's balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the transaction account database. The Illinois EPA will then retire ATUs in sources' transaction accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its transaction account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

In addition to receiving ATUs pursuant to their allotments, participating sources may also obtain ATUs from the market, including ATUs bought from other participating sources and general participants in the ERMS that hold ATUs (35 IAC 205.630) and ATUs issued by the Illinois EPA as a consequence of VOM emissions reductions from an Emissions Reduction Generator or an Intersector Transaction (35 IAC 205.500 and 35 IAC 205.510). During the reconciliation period, sources may also buy ATUs from a secondary reserve of ATUs managed by the Illinois EPA, the "Alternative Compliance Market Account" (ACMA) (35 IAC 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 IAC 205.630).

# 6.3.2 Applicability

This source is considered a "participating source" for purposes of the ERMS, 35 IAC Part 205.

- 6.3.3 Obligation to Hold Allotment Trading Units (ATUs)
  - a. Pursuant to 35 IAC 205.150(c)(1) and 35 IAC 205.720, and as further addressed by Condition 6.2.8, as of December 31 of each year, this source shall hold ATUs in its account in an amount not less than the ATU equivalent of its VOM emissions during the preceding seasonal allotment period (May 1 September 30), not including VOM emissions from the following, or the source shall be subject to "emissions excursion compensation," as described in Condition 6.2.5.
    - i. VOM emissions from insignificant emission units and activities as identified in Section 3 of this permit, in accordance with 35 IAC 205.220;
    - ii. Excess VOM emissions associated with startup, malfunction, or breakdown of an emission unit as authorized in Section 7.0 of this permit, in accordance with 35 IAC 205.225;
    - iii. Excess VOM emissions to the extent allowed by a Variance, Consent Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e)(3);
    - iv. Excess VOM emissions that are a consequence of an emergency as approved by the Illinois EPA, pursuant to 35 IAC 205.750; and
    - v. VOM emissions from certain new and modified emission units as addressed by Condition 6.2.8(b), if applicable, in accordance with 35 IAC 205.320(f).
  - b. Notwithstanding the above condition, in accordance with 35 IAC 205.150(c)(2), if a source commences operation of a major modification, pursuant to 35 IAC Part 203, the source shall hold ATUs in an amount not less than 1.3 times its seasonal VOM emissions attributable to such major modification during the seasonal allotment period, determined in accordance with the construction permit for such major modification or applicable provisions in Section 7.0 of this permit.

# 6.3.4 Market Transactions

a. The source shall apply to the Illinois EPA for and obtain authorization for a Transaction Account prior to conducting any market transactions, as specified at 35 IAC 205.610(a).

- b. The Permittee shall promptly submit to the Illinois EPA any revisions to the information submitted for its Transaction Account, pursuant to 35 IAC 205.610(b).
- c. The source shall have at least one account officer designated for its Transaction Account, pursuant to 35 IAC 205.620(a).
- d. Any transfer of ATUs to or from the source from another source or general participant must be authorized by a qualified Account Officer designated by the source and approved by the Illinois EPA, in accordance with 35 IAC 205.620, and the transfer must be submitted to the Illinois EPA for entry into the Transaction Account database.

#### 6.3.5 Emissions Excursion Compensation

Pursuant to 35 IAC 205.720, if the source fails to hold ATUs in accordance with Condition 6.2.3, it shall provide emissions excursion compensation in accordance with the following:

- a. Upon receipt of an Excursion Compensation Notice issued by the Illinois EPA, the source shall purchase ATUs from the ACMA in the amount specified by the notice, as follows:
  - i. The purchase of ATUs shall be in an amount equivalent to 1.2 times the emissions excursion; or
  - ii. If the source had an emissions excursion for the seasonal allotment period immediately before the period for the present emissions excursion, the source shall purchase ATUs in an amount equivalent to 1.5 times the emissions excursion.
- b. If requested in accordance with paragraph (c) below or in the event that the ACMA balance is not adequate to cover the total emissions excursion amount, the Illinois EPA will deduct ATUs equivalent to the specified amount or any remaining portion thereof from the ATUs to be issued to the source for the next seasonal allotment period.
- c. Pursuant to 35 IAC 205.720(c), within 15 days after receipt of an Excursion Compensation Notice, the owner or operator may request that ATUs equivalent to the amount specified be deducted from the source's next seasonal allotment by the Illinois EPA, rather than purchased from the ACMA.

#### 6.3.6 Quantification of Seasonal VOM Emissions

a. The methods and procedures specified in Sections 5 and 7 of this permit for determining VOM emissions and compliance with VOM emission limitations shall be used for determining seasonal VOM emissions for purposes of the ERMS, with the following exceptions [35 IAC 205.315(b)]:

## No exceptions

- b. The Permittee shall report emergency conditions at the source to the Illinois EPA, in accordance with 35 IAC 205.750, if the Permittee intends to deduct VOM emissions in excess of the technology-based emission rates normally achieved that are attributable to the emergency from the source's seasonal VOM emissions for purposes of the ERMS. These reports shall include the information specified by 35 IAC 205.750(a), and shall be submitted in accordance with the following:
  - i. An initial emergency conditions report within two days after the time when such excess emissions occurred due to the emergency; and
  - ii. A final emergency conditions report, if needed to supplement the initial report, within 10 days after the conclusion of the emergency.

## 6.3.7 Annual Account Reporting

- a. For each year in which the source is operational, the Permittee shall submit, as a component of its Annual Emissions Report, seasonal VOM emissions information to the Illinois EPA for the seasonal allotment period. This report shall include the following information [35 IAC 205.300]:
  - i. Actual seasonal emissions of VOM from the source;
  - ii. A description of the methods and practices used to determine VOM emissions, as required by this permit, including any supporting documentation and calculations;
  - iii. A detailed description of any monitoring methods that differ from the methods specified in this permit, as provided in 35 IAC 205.337;
  - iv. If a source has experienced an emergency, as provided in 35 IAC 205.750, the report shall reference the associated emergency conditions report that has been approved by the Illinois EPA;

- v. If a source's baseline emissions have been adjusted due to a Variance, Consent Order, or CAAPP permit Compliance Schedule, as provided for in 35 IAC 205.320(e)(3), the report shall provide documentation quantifying the excess VOM emissions during the season that were allowed by the Variance, Consent Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e)(3); and
- vi. If a source is operating a new or modified emission unit for which three years of operational data is not yet available, as specified in 35 IAC 205.320(f), the report shall specify seasonal VOM emissions attributable to the new emission unit or the modification of the emission unit.
- b. This report shall be submitted by November 30 of each year, for the preceding seasonal allotment period.

## 6.3.8 Allotment of ATUs to the Source

#### Explanation:

The Illinois EPA could not determine the appropriate allotments when the draft permit was distributed for public review and comment because the Permittee had not completed a review of the future VOM emissions from the source, including the new John Stroger, Jr., Hospital of Cook County, during the seasonal allotment trading period, May through September of each year. The issued permit will include the appropriate allotments based on the VOM emission information that the source is assembling during the public comment period.

# 6.3.9 Recordkeeping for ERMS

The Permittee shall maintain copies of the following documents as its Compliance Master File for purposes of the ERMS [35 IAC 205.700(a)]:

- a. Seasonal component of the Annual Emissions Report;
- Information on actual VOM emissions, as specified in detail in Sections 5 and 7 of this permit and Condition 6.2.6(a); and
- c. Any transfer agreements for the purchase or sale of ATUs and other documentation associated with the transfer of ATUs.

## 6.3.10 Exclusions from Further Reductions

a. VOM emissions from the following emission units shall be excluded from the VOM emissions reductions requirements specified in 35 IAC 205.400(c) and (e)

as long as such emission units continue to satisfy the following [35 IAC 205.405(a)]:

- Emission units that comply with any NESHAP or MACT standard promulgated pursuant to the CAA;
- ii. Direct combustion emission units designed and used for comfort heating purposes, fuel combustion emission units, and internal combustion engines; and
- iii. An emission unit for which a LAER demonstration has been approved by the Illinois EPA on or after November 15, 1990.

The source has demonstrated in its ERMS application and the Illinois EPA has determined that the following emission units qualify for exclusion from further reductions because they meet the criteria as indicated above [35 IAC 205.405(a) and (c)]:

#### None

b. VOM emissions from emission units using BAT for controlling VOM emissions shall not be subject to the VOM emissions reductions requirement specified in 35 IAC 205.400(c) or (e) as long as such emission unit continues to use such BAT [35 IAC 205.405(b)].

The source has demonstrated in its ERMS application and the Illinois EPA has determined that the following emission units qualify for exclusion from further reductions because these emission units use BAT for controlling VOM emissions as indicated above [35 IAC 205.405(b) and (c)]:

None

## 7.0 UNIT SPECIFIC CONDITIONS

7.1 Boilers (Subject to NSPS - 40 CFR Subpart Dc)

# 7.1.1 Description

The boilers and chiller are fuel combustion emission units used to generate steam for heating, cooling, and other purposes at the hospital. The boilers are powered by natural gas and distillate fuel oil backup, and the chiller is powered by natural gas. NOx emissions from the boilers, other than B10, are controlled with low NOx burners. The two larger boilers, B1 and B2, were constructed in 1997. The seven additional boilers, B4-B10, and chiller, CHILL1, were constructed since 2000 in conjunction with the new John H. Stroger, Jr., Hospital of Cook County.

## 7.1.2 List of Emission Units and Air Pollution Control Equipment

	Emission Control
Description	Equipment
Natural Gas Fired Boiler	Low NO <sub>x</sub> Burners
with Fuel Oil Backup	
(84.5 mmBtu/Hr)	
Natural Gas Fired Boiler	Low NO <sub>x</sub> Burners
with Fuel Oil Backup	
(84.5 mmBtu/Hr)	
Natural Gas Fired Boiler	Low NO <sub>x</sub> Burners
with Fuel Oil Backup	
(33 mmBtu/Hr)	
Natural Gas Fired Boiler	Low NO <sub>x</sub> Burners
with Fuel Oil Backup	
(33 mmBtu/Hr)	
Natural Gas Fired Boiler	Low NO <sub>x</sub> Burners
with Fuel Oil Backup	
(33 mmBtu/Hr)	
Natural Gas Fired Boiler	Low $\mathrm{NO}_{\mathrm{x}}$ Burners
with Fuel Oil Backup	
(33 mmBtu/Hr)	
Natural Gas Fired Boiler	Low $\mathrm{NO}_{\mathrm{x}}$ Burners
with Fuel Oil Backup	
(33 mmBtu/Hr)	
Natural Gas Fired Boiler	Low NO <sub>x</sub> Burners
with Fuel Oil Backup	
(33 mmBtu/Hr)	
Natural Gas Fired Boiler	None
(12 mmBtu/Hr)	
Natural Gas Fired Chiller	None
(12.0 mmBtu/Hr)	
	Natural Gas Fired Boiler with Fuel Oil Backup (84.5 mmBtu/Hr)  Natural Gas Fired Boiler with Fuel Oil Backup (84.5 mmBtu/Hr)  Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)  Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)  Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)  Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)  Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)  Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)  Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)  Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)  Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)  Natural Gas Fired Boiler Oil Backup (33 mmBtu/Hr)  Natural Gas Fired Boiler (12 mmBtu/Hr)

## 7.1.3 Applicability Provisions and Applicable Regulations

a. An "affected boiler" for the purpose of these unitspecific conditions, is a boiler described in Conditions 7.1.1 and 7.1.2.

- b. The affected boilers are subject to the emission limits identified in Condition 5.2.2.
- c. The affected boilers are subject to the NSPS for Small Industrial-Commercial Institutional Steam Generating Units, 40 CFR 60 Subparts A and Dc, because the construction, modification, or reconstruction is commenced after June 9, 1989 and has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr). The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA.

#### i. Standard for Sulfur Dioxide

Pursuant to 40 CFR 60.42c(d), no owner or operator of an affected boiler that combusts oil shall cause to be discharged into the atmosphere from that affected boiler any gases that contain  $SO_2$  in excess of  $215~\rm ng/J$  (0.50 lb/million Btu) heat input; or, as an alternative, no owner or operator of an affected boiler that combusts oil the affected boilers shall not combust oil in the affected boilers that contains greater than 0.5 weight percent sulfur.

Note: A more stringent SO2 standard applies under the applicable state rule, see Condition 7.1.3(d).

# ii. Standard for Opacity

Pursuant to 40 CFR 60.43c(c), affected boilers with a heat input capacity of 30 million Btu/hr or greater, shall not discharge any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

Pursuant to 40 CFR 60.43c(d), the above opacity standard shall apply at all times

opacity standard shall apply at all times, except during periods of startup, shutdown, or malfunction.

- d. Pursuant to 35 IAC 214.122(b) and 35 IAC 214.162, no person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion source burning distillate fuel oil:
  - i. To exceed 0.46 kg of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned (0.3 lbs/mmBtu).

- e. No person shall cause or allow the emission of carbon monoxide into the atmosphere from any fuel combustion emission source with actual heat input greater than 10 mmBtu/hr to exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].
- f. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period to exceed 0.15 kg of particulate matter per MW-hr of actual heat input from any fuel combustion emission unit using liquid fuel exclusively (0.10 lbs/mmBtu) [35 IAC 212.206 and 212.162].

# 7.1.4 Non-Applicability of Regulations of Concern

- a. The provisions of 35 IAC 218.301 and 302, Use of Organic Material, shall not apply to fuel combustion emission sources [35 IAC 218.303].
- b. The control requirements of 35 IAC 218 Subpart TT shall not apply to fuel combustion units [35 IAC 218.980(f)].
- c. The affected boilers are not subject to the requirements of the NOx Compliance Programs of 35 IAC Part 217 because each affected boiler does not currently serve a generator with a nameplate capacity of greater than 25 MWe.
- d. The affected boilers are not subject to the requirements of the Acid Rain Program of 40 CFR 72 because each affected boiler does not currently serve a generator with a nameplate capacity of greater than 25 MWe.

# 7.1.5 Operational and Production Limits and Work Practices

- a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected boiler in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].
- b. Natural gas and distillate fuel oil shall be the only fuels fired in affected boilers B1-B9.
- c. Natural gas shall be the only fuel fired in affected boiler B10.

d. Natural gas shall be the only fuel fired in affected boiler CHILL1.

# 7.1.6 Emission Limitations

Refer to Condition 7.1.13.

# 7.1.7 Testing Requirements

a. The Permittee shall conduct opacity observations for the affected boilers in accordance with the applicable testing requirements of 40 CFR 60.45(c).

# 7.1.8 Monitoring and Measuring Requirements

a. The Permittee shall conduct sampling and analysis of its distillate fuel oil supply in accordance with 40 CFR 60.44(c)(g) and 40 CFR 60.48(c)(f).

Note: The Illinois EPA has determined that the affected boilers are not subject to continuous emission monitoring for opacity or sulfur dioxide under 40 CFR 60.46(c), because the affected boilers are only fired with natural gas and distillate fuel oil and sampling of fuel will be performed to determine compliance with applicable sulfur dioxide emission limitations.

# 7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected boilers to demonstrate compliance with Conditions 5.5.1, 7.1.3, 7.1.5, and 7.1.6, pursuant to Section 39.5(7) (b) of the Act:

- a. A maintenance and repair log for each affected boiler, listing activities performed with date.
- b. The sulfur content of the fuel fired in the affected boilers.
- c. Fuel consumption for the affected boilers, scf/day and scf/year, and gal/month and gal/year.
- d. Operating hours for the affected boilers, hr/day and hr/year.
- e. Heat content of the fuels being fired in the affected boilers.
- f. i. Organic liquid by-products or waste materials shall not be used in these fuel combustion emission sources without written approval from this Illinois EPA.

- ii. The Illinois EPA shall be allowed to sample all fuels stored at the above location.
- g. Emissions of each pollutant from the affected boilers, including emissions from startups, with supporting calculations including documentation on the validity of the emission factors used, ton/month and ton/yr.
- h. The Permittee shall maintain the following if required:
  - i. Record of any day in which emission and/or opacity exceeded an applicable standard or limit.
- i. The Permittee shall fulfill the applicable recordkeeping requirements of 40 CFR 60.48(c).

# 7.1.10 Reporting Requirements

- a. The Permittee shall fulfill applicable reporting requirements of 40 CFR 60.48(c).
- b. The Permittee shall promptly notify the Illinois EPA of deviations of an affected boiler with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:
  - i. Notification within 30 days for operation of an affected boiler that was not in compliance with applicable requirements of Section 7.1.3, 7.1.5, and 7.1.6.
  - ii. Notification within 60 days of deviation for testing, monitoring, and recordkeeping except as addressed by Condition 7.1.13.
- 7.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

# 7.1.12 Compliance Procedures

- a. Compliance with Condition 7.1.3(c)(i) and 7.1.3(d)is demonstrated by the measurement requirements of 7.1.8 and by the recordkeeping requirements of 7.1.9.
- b. Compliance with Condition 7.1.3(e) is considered to be assured by the normal work practices and maintenance activities inherent in operation of the affected boilers.
- c. Compliance with Condition 7.1.3(f) is considered to be assured by the normal work practices and maintenance

activities inherent in operation of the affected boilers.

d. Compliance with the emission limits in Conditions 5.5 and 7.1.6 shall be determined by using published USEPA emission factors, Illinois EPA approved stack test data, Illinois EPA approved measured emission factors, or approved manufacturer's data and the recordkeeping requirements in Condition 7.1.9.

# 7.1.13 Compliance Schedules

- The Permittee was sent a Violation Notice A-2003-00273 by the Illinois EPA for its failure to obtain construction permits for the affected boilers B1, B2, B4-B10, and chiller CHILL1, for failing to comply with the applicable requirements of 40 CFR 60 Subpart Dc, and for failing to comply with the applicable requirements of the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 and possible failure to comply with the state rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203. The permit shield in Section 8.1 does not shield the Permittee from possible enforcement actions initiated by either USEPA or the Illinois EPA involving the above named emission units or activities. The Permittee shall, as specified, apply for revision of this permit to address the resolution of any such outstanding issue (e.g., include a new compliance schedule, demonstrate compliance with applicable requirements).
  - i. Within 30 days of issuance of this permit, the Permittee shall submit the results of the fuel analysis as required by Condition 7.1.8.
  - ii. Within 30 days that of the date that distillate oil is next fired in the affected boilers, the Permittee shall submit test reports for opacity observations conducted in accordance with 40 CFR 60.45(c)(a)(8). See Condition 7.1.7.
- b. The Permittee shall comply with the following schedule of compliance for the affected boilers:

Milestone	Timing
Compliance with requirements	No later than any
resulting from resolution of	schedule established
enforcement issues regarding	in resolution of the
the violations.	enforcement action.

c. Submittal of Progress Reports

Progress Reports shall be submit by every March 31, June 30, September 30, and December 31 from the date of issuance of this permit and ending upon the achievement of compliance. The Progress Report shall contain at least the following:

- i. The required date for achieving interim commitments, and actual dates when such commitments were achieved.
- ii. Any interim commitments accepted by the Permittee or otherwise established for the affected boilers as part of the resolution of enforcement action, with the associated date or schedule.
- iii. An explanation of why any required timeframe for any interim commitment that was not met, and any preventive or corrective measures adopted.
- iv. A discussion of progress in complying with interim commitments that are subject to future deadlines.
- d. Within 120 days of resolution of this enforcement action, the Permittee shall apply to revise this permit if any additional requirements are established for the affected boilers as part of a resolution.
  - Note: The above conditions are based upon information available to the Illinois EPA. Additional information in regards to these equipment may be submit to the Illinois EPA prior to the final issuance of the permit. At such time that additional information is submit prior to final issuance, the Illinois EPA will revise the permit accordingly.

#### 7.2 Boilers

7.2.1 Description

The boiler is a fuel combustion emission unit used to generate steam for the old facility. The boiler is powered by natural gas and fuel oil backup.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission		Emission Control
Unit	Description	Equipment
В3	Natural Gas Fired Boiler	None
	with Fuel Oil Backup	
	(83 mmBtu/Hr)	

- 7.2.3 Applicability Provisions and Applicable Regulations
  - a. An "affected boiler" for the purpose of these unitspecific conditions, is a boiler described in Conditions 7.2.1 and 7.2.2.
  - b. The affected boiler is subject to the emission limits identified in Condition 5.2.2.
  - c. Pursuant to 35 IAC 214.161 and 214.162, no person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any existing fuel combustion emission source, burning liquid fuel exclusively:
    - i. To exceed 1.55 kg of sulfur dioxide per MW-hr of actual heat input when residual fuel oil is burned (1.0 lbs/mmBtu).
    - ii. To exceed 0.46 kg of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned (0.3 lbs/mmBtu).
  - d. No person shall cause or allow the emission of carbon monoxide into the atmosphere from any fuel combustion emission source with actual heat input greater than 10 mmBtu/hr to exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].
  - e. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period to exceed 0.15 kg of particulate matter per MW-hr of actual heat input from any fuel combustion emission unit using liquid fuel exclusively (0.10 lbs/mmBtu) [35 IAC 212.206 and 212.162].
- 7.2.4 Non-Applicability of Regulations of Concern
  - a. This permit is issued based on the affected boiler not being subject to the following New Source Performance Standards (NSPS) for Small Industrial-

Commercial-Institutional Steam Generating Units because the affected boiler commenced construction before June 9, 1989 and has not been modified thereafter, based on the NSPS definition of modification.

- b. The provisions of 35 IAC 218.301 and 302, Use of Organic Material, shall not apply to fuel combustion emission sources [35 IAC 218.303].
- c. The control requirements of 35 IAC 218 Subpart TT shall not apply to fuel combustion units [35 IAC 218.980(f)].
- d. The affected boiler is not subject to the requirements of the NOx Compliance Programs of 35 IAC Part 217 because the affected boiler has a nameplate capacity less than 25 MWe.
- e. Pursuant to 40 CFR 72.6(b)(2), any affected boiler that commenced commercial operation before November 15, 1990 and that did not, as of November 15, 1990, and does not currently, serve a generator with a nameplate capacity of greater than 25 MWe are not affected units subject to the requirements of the Acid Rain Program.
- e. This permit is issued based on the affected boiler not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected boiler does not use an add-on control device to achieve compliance with an emission limitation or standard.

## 7.2.5 Operational and Production Limits and Work Practices

- a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected boiler in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- b. Natural gas or fuel oil shall be the only fuels in the affected boiler.

# 7.2.6 Emission Limitations

There are no specific emission limitations for this affected boiler, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.2.7 Testing Requirements

None

7.2.8 Monitoring Requirements

None

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected boiler to demonstrate compliance with Conditions 5.5.1, 7.2.3, 7.2.5, and 7.2.6, pursuant to Section 39.5(7)(b) of the Act:

- a. A maintenance and repair log for the affected boiler, listing activities performed with date.
- b. The sulfur content of the fuels fired in the affected boiler.
- c. Fuel consumption for the affected boiler, scf/day and scf/year, gal/month and gal/year.
- d. Operating hours for the affected boiler, hr/day and hr/year.
- e. Heat content of the fuels being fired in the affected boiler.
- f. i. Organic liquid by-products or waste materials shall not be used in these fuel combustion emission sources without written approval from this Illinois EPA.
  - ii. The Illinois EPA shall be allowed to sample all fuels stored at the above location.
- g. Emissions of each pollutant from the affected boiler, including emissions from startups, with supporting calculations including documentation on the validity of the emission factors used, ton/month and ton/yr.
- h. The Permittee shall maintain the following if required:
  - i. Any day in which emission and/or opacity exceeded an applicable standard or limit.

# 7.2.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA of deviations of an affected boiler with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe

the probable cause of such deviations, and any corrective actions or preventive measures taken:

- i. Notification within 30 days for operation of an affected boiler that was not in compliance with applicable requirements of Section 7.2.3, 7.2.5, and 7.2.6.
- ii. Notification within 60 days of deviation for testing, monitoring, and recordkeeping.
- 7.2.11 Operational Flexibility/Anticipated Operating Scenarios  $$\mathrm{N/A}$$

# 7.2.12 Compliance Procedures

- a. Compliance with Condition 7.2.3(c) is demonstrated by proper operating conditions of the affected boiler.
- b. Compliance with Condition 7.2.3(d) is considered to be assured by the normal work practices and maintenance activities inherent in operation of the affected boiler.
- c. Compliance with Condition 7.2.3(e) is considered to be assured by the normal work practices and maintenance activities inherent in operation of the affected boiler.
- d. Compliance with the emission limits in Conditions 5.5 and 7.2.6 shall be determined by using published emission factors, Illinois EPA approved stack test data, Illinois EPA approved measured emission factors, or approved manufacturer's data and the recordkeeping requirements in Condition 7.2.9.

#### 7.3 Engines

## 7.3.1 Description

The engines are process emission units used to generate backup electricity. The engines are powered by distillate fuel oil.

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission		Emission Control
Unit	Description	Equipment
ICE1	2000 KW Fuel Oil	None
	Fired Engine	
ICE2	2000 KW Fuel Oil	None
	Fired Engine	
ICE3	2000 KW Fuel Oil	None
	Fired Engine	
ICE4	2000 KW Fuel Oil	None
	Fired Engine	
ICE5	2000 KW Fuel Oil	None
	Fired Engine	

## 7.3.3 Applicability Provisions and Applicable Regulations

- a. An "affected engine" for the purpose of these unitspecific conditions, is an engine described in Conditions 7.3.1 and 7.3.2.
- b. The affected engines are subject to the emission limits identified in Condition 5.2.2.
- c. i. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm [35 IAC 214.301].
  - ii. Pursuant to 35 IAC 214.304, the emissions from the burning of fuel at process emission sources located in the Chicago or St. Louis (Illinois) major metropolitan areas shall comply with applicable 35 IAC 214 Subparts B through F. Therefore, pursuant to 35 IAC 214 Subpart B Section 214.122, no person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion emission source (process emission source), burning liquid fuel exclusively to exceed 0.46 kg of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned (0.3 lbs/mmBtu).

# 7.3.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on an affected engine not being subject to the requirements of 35 IAC 212.321 or 212.322, because due to the unique nature of such unit, a process weight rate can not be set so that such rules can not reasonably be applied.

- b. An affected engine is not subject to 35 IAC 217.141, because an affected engine is not by definition a fuel combustion unit.
- c. An affected engine is not subject to 35 IAC 216.121, because an affected engine is not by definition a fuel combustion unit.
- d. Pursuant to 40 CFR 72.6(b)(2), any affected engine that commenced commercial operation before November 15, 1990 and that did not, as of November 15, 1990, and does not currently, serve a generator with a nameplate capacity of greater than 25 MWe are not affected units subject to the requirements of the Acid Rain Program.
- e. The affected engines are not subject to the requirements of the  $\rm NO_x$  Trading Programs of 35 IAC Part 217 because each affected engine has a nameplate capacity less than 25 MWe.
- f. This permit is issued based on the affected engines not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected engines does not use an add-on control device to achieve compliance with an emission limitation or standard.
- 7.3.5 Operational and Production Limits and Work Practices
  - a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected ethylene oxide sterilizers in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA which may include, but is not limited to, review of operating and maintenance procedures, and inspection of the source.
  - b. Distillate fuel oil shall be the only fuel fired in the affected engines.
- 7.3.6 Emission Limitations

Refer to Condition 7.3.13.

7.3.7 Testing Requirements

None

#### 7.3.8 Monitoring Requirements

None

# 7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected engines to demonstrate compliance with Conditions 5.5.1, 7.3.3, 7.3.5, and 7.3.6, pursuant to Section 39.5(7) (b) of the Act:

- a. A maintenance and repair log for each affected engine, listing activities performed with date.
- b. The sulfur content of the fuel fired in the affected engines.
- c. Fuel consumption for the affected engines, gal/month and gal/year.
- d. Operating hours for the affected engines, hr/month and hr/year.
- e. Heat content of the fuel being fired in the affected engines.
- f. Emissions of each pollutant from the affected engines, including emissions from startups, with supporting calculations including documentation on the validity of the emission factors used, ton/month and ton/yr.
- g. Records of the sulfur content of the fuel oil supply to the affected engines, based on the weighted average of material in the storage tank, or the sulfur content of the supply shall be assumed to be the maximum sulfur content for any shipment in the tank.

### 7.3.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA of deviations of an affected engine with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:
  - i. Notification within 30 days for operation of an affected engine that was not in compliance with applicable requirements of Section 7.3.3, 7.3.5, and 7.3.6.
  - ii. Notification within 60 days of deviation for testing, monitoring, and recordkeeping except as addressed by Condition 7.3.13.

b. Reporting of Malfunctions and Breakdowns

The Permittee shall provide the following notification and reports to the Illinois EPA, Compliance Section and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of an affected engine during malfunction or breakdown.

- i. The Permittee shall notify the Illinois EPA's regional office by telephone as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction or breakdown.
- ii. Upon achievement of compliance, the Permittee shall give a written follow-up notice to the Illinois EPA, Compliance Section and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected engine was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected engine was taken out of service.
- 7.3.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

## 7.3.12 Compliance Procedures

- a. Compliance with Condition 7.3.3(c) is demonstrated by proper operating conditions of the affected engines.
- b. Compliance with the emission limits in Conditions 5.5 and Condition 7.3.6 shall be determined by using Illinois EPA approved published emission factors such as AP-42, Illinois EPA approved stack test data results, Illinois EPA approved measured emission factors, or Illinois EPA approved manufacturer's data and the recordkeeping requirements in Condition 7.3.9.

# 7.3.13 Compliance Schedules

a. i. The Permittee was sent a Violation Notice A-2003-00273 by the Illinois EPA for its failure to obtain construction permits for the affected engines, ICE 1-5, and for failing to comply with the applicable requirements of the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 and possible

failure to comply with the state rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203. The permit shield in Section 8.1 does not shield the Permittee from enforcement actions involving the affected engines ICE 1-5. The Permittee shall, as specified, apply for revision of this permit to address the resolution of any such outstanding issue (e.g., include a new compliance schedule, demonstrate compliance with applicable requirements).

b. The Permittee shall comply with the following schedule of compliance for the affected engines:

Milestone	Timing	
Compliance with requirements	No later than any	
resulting from resolution of	schedule established	
enforcement issues regarding	in resolution of the	
the violations.	enforcement action.	

c. Submittal of Progress Reports

Progress Reports shall be submit by every March 31, June 30, September 30, and December 31 from the date of issuance of this permit and ending upon the achievement of compliance. The Progress Report shall contain at least the following:

- i. The required date for achieving interim commitments, and actual dates when such commitments were achieved.
- ii. Any interim commitments accepted by the Permittee or otherwise established for the affected engines as part of the resolution of enforcement action, with the associated date or schedule.
- iii. An explanation of why any required timeframe for any interim commitment that was not met, and any preventive or corrective measures adopted.
- iv. A discussion of progress in complying with interim commitments that are subject to future deadlines.
- d. Within 120 days of resolution of this enforcement action, the Permittee shall apply to revise this permit if any additional requirements are established for the affected engines as part of a resolution.

Note: The above conditions are based upon information available to the Illinois EPA.

Additional information in regards to these equipment may be submit to the Illinois EPA prior to the final issuance of the permit. At such time that additional information is

submit prior to final issuance, the Illinois EPA will revise the permit accordingly.

## 7.4 Ethylene Oxide Sterilizers (ETO)

## 7.4.1 Description

The sterilizers are process emission sources used for sterilization of medical instruments.

7.4.2 List of Emission Units and Pollution Control Equipment

Emission		Emission Control
Unit	Description	Equipment
ETO1-3	Ethylene Oxide Sterilizers	ETO Abator

## 7.4.3 Applicability Provisions and Applicable Regulations

- a. An "affected ethylene oxide sterilizer" for the purpose of these unit-specific conditions, is an ethylene oxide sterilizer as described in Conditions 7.4.1 and 7.4.2.
- b. The affected ethylene oxide sterilizers are subject to the emission limits identified in Condition 5.2.2.

### 7.4.4 Non-Applicability of Regulations of Concern

- a. The affected ethylene oxide sterilizers at this source are not subject to requirements of 40 CFR Part 63, Subpart Q "National Emission Standards for Hazardous Air Pollutants for Ethylene Oxide Commercial Sterilization and Fumigation Operations", because pursuant to 40 CFR 63.360(e) all hospitals, doctors offices, and clinics are exempted from the requirements of these rules.
- b. The affected ethylene oxide sterilizers at this source are not subject to requirements of 35 IAC Part 218, Subpart G "Use of Organic Material", because pursuant to 35 IAC 211.7150, chemical compounds used at this unit are not photochemical reactive.
- c. This permit is issued based on an affected ethylene oxide sterilizers not being subject to the requirements of 35 IAC 212.321 or 212.322, because due to the unique nature of such unit, a process weight rate can not be set so that such rules can not reasonably be applied.
- d. This permit is issued based on the affected ethylene oxide sterilizers not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected ethylene oxide sterilizers does not use an add-on control device to achieve compliance with an emission limitation or standard.

- 7.4.5 Operational and Production Limits and Work Practices
  - a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected ethylene oxide sterilizers in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA which may include, but is not limited to, review of operating and maintenance procedures, and inspection of the source.
- 7.4.6 Emission Limitations

Refer to Condition 7.4.13.

7.4.7 Testing Requirements

None

7.4.8 Monitoring Requirements

None

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected ethylene oxide sterilizers to demonstrate compliance with Conditions 5.5.1, 7.3.3, 7.3.5, and 7.3.6, pursuant to Section 39.5(7)(b) of the Act:

- a. A maintenance and repair log for each affected ethylene oxide sterilizer, listing activities performed with date.
- b. Ethylene oxide consumption for the affected ethylene oxide sterilizers, scf/month and scf/year.
- c. Operating hours for the affected ethylene oxide sterilizers, hr/month and hr/year.
- d. Emissions of each pollutant from the affected ethylene oxide sterilizers, including emissions from startups, with supporting calculations including documentation on the validity of the emission factors used, lb/month and lb/yr.

### 7.4.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA of deviations of an affected ethylene oxide sterilizer with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- i. Notification within 30 days for operation of an affected ethylene oxide sterilizer that was not in compliance with applicable requirements of Section 7.3.3, 7.3.5, and 7.3.6.
- ii. Notification within 60 days of deviation for testing, monitoring, and recordkeeping except as addressed by Condition 7.4.13.
- 7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

# 7.4.12 Compliance Procedures

a. Compliance with Condition 7.4.9(d) is demonstrated by assuming that all ethylene oxide consumed is converted to HAP emissions. The following equation shall be used:

HAP Emissions = Ethylene Oxide Consumption

b. Compliance with the emission limits in Conditions 5.5 and Condition 7.4.6 shall be determined by using Illinois EPA approved published emission factors such as AP-42, Illinois EPA approved stack test data results, Illinois EPA approved measured emission factors, or Illinois EPA approved manufacturer's data and the recordkeeping requirements in Condition 7.4.9.

## 7.4.13 Compliance Schedules

- The Permittee was sent a Violation Notice A-2003-00273 by the Illinois EPA for its failure to obtain construction permits for the affected ethylene oxide sterilizers, and for failing to comply with the applicable requirements of the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 and possible failure to comply with the state rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203. The permit shield in Section 8.1 does not shield the Permittee from enforcement actions involving the affected ethylene oxide sterilizers. The Permittee shall, as specified, apply for revision of this permit to address the resolution of any such outstanding issue (e.g., include a new compliance schedule, demonstrate compliance with applicable requirements).
- b. The Permittee shall comply with the following schedule of compliance for the affected ethylene oxide sterilizers:

Milestone	Timing	
Compliance with requirements	No later than any	
resulting from resolution of	schedule established	
enforcement issues regarding	in resolution of the	

the violations.

enforcement action.

c. Submittal of Progress Reports

Progress Reports shall be submit by every March 31, June 30, September 30, and December 31 from the date of issuance of this permit and ending upon the achievement of compliance. The Progress Report shall contain at least the following:

- i. The required date for achieving interim commitments, and actual dates when such commitments were achieved.
- ii. Any interim commitments accepted by the Permittee or otherwise established for the affected ethylene oxide sterilizers as part of the resolution of enforcement action, with the associated date or schedule.
- iii. An explanation of why any required timeframe for any interim commitment that was not met, and any preventive or corrective measures adopted.
- iv. A discussion of progress in complying with interim commitments that are subject to future deadlines.
- d. Within 120 days of resolution of this enforcement action, the Permittee shall apply to revise this permit if any additional requirements are established for the affected ethylene oxide sterilizers as part of a resolution.

Note: The above conditions are based upon information available to the Illinois EPA. Additional information in regards to these equipment may be submit to the Illinois EPA prior to the final issuance of the permit. At such time that additional information is submit prior to final issuance, the Illinois EPA will revise the permit accordingly.

#### 8.0 GENERAL PERMIT CONDITIONS

#### 8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after \_\_\_\_\_\_ {insert public notice start date} (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

- 8.4 Operational Flexibility/Anticipated Operating Scenarios
  - 8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12)(a)(i) of the Act]:

- a. The changes do not violate applicable requirements;
- b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;

- c. The changes do not constitute a modification under Title I of the CAA;
- d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and
- e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:
  - i. Describe the physical or operational change;
  - ii. Identify the schedule for implementing the physical or operational change;
  - iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
  - iv. Provide emission calculations which
     demonstrate that the physical or operational
     change will not result in a modification; and
  - v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

### 8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

## 8.6 Reporting Requirements

## 8.6.1 Monitoring Reports

If monitoring is required by any applicable requirements or conditions of this permit, a report summarizing the required monitoring results, as specified in the conditions of this permit, shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

Monitoring Period

Report Due Date

January - June

September 1

July - December March 1
All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

#### 8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;
- e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

# 8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;

- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

# 8.6.4 Reporting Addresses

- a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:
  - Illinois EPA Air Compliance Section
    Illinois Environmental Protection Agency Bureau of Air
    Compliance Section (#40)

P.O. Box 19276 Springfield, Illinois 62794-9276

ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency Division of Air Pollution Control 9511 West Harrison Des Plaines, Illinois 60016

iii. Illinois EPA - Air Permit Section (MC 11)

Illinois Environmental Protection Agency Division of Air Pollution Control Permit Section P.O. Box 19506 Springfield, Illinois 62794-9506

iv. USEPA Region 5 - Air Branch

USEPA (AR - 17J) Air & Radiation Division 77 West Jackson Boulevard Chicago, Illinois 60604

- b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.
- 8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

#### 9.0 STANDARD PERMIT CONDITIONS

#### 9.1 Effect of Permit

- 9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].
- 9.1.2 In particular, this permit does not alter or affect the following:
  - a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
  - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
  - c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
  - d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.
- 9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

## 9.2 General Obligations of Permittee

## 9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

# 9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

## 9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

### 9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

### 9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois, 62794-9276.

## 9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(a) and (p)(ii) of the Act and 415 ILCS 5/4]:

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- d. Sample or monitor any substances or parameters at any location:
  - i. At reasonable times, for the purposes of assuring permit compliance; or
  - ii. As otherwise authorized by the CAA, or the Act.

- e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

## 9.4 Obligation to Comply With Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

## 9.5 Liability

### 9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

### 9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

## 9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

# 9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

## 9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

## 9.6 Recordkeeping

### 9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a

minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

## 9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

#### 9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].
- b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

## 9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

## 9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.
- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.

c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

## 9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

### 9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

## 9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technologybased emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:
  - i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency. Normally, an act of God such as lightning or flood is considered an emergency;
  - ii. The permitted source was at the time being properly operated;
  - iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
  - iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.
- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

## 9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

# 9.12 Reopening and Reissuing Permit for Cause

#### 9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Actl.

# 9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and
- d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

# 9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

## 9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing

to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

## 9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

## 9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(1), (n), and (o) of the Act].

## 10.0 ATTACHMENTS

10.1 Attachment 1 - Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:	
Name:	
Official Title:	
Telephone No.:	
Date Signed:	

#### 10.2 Attachment 2 - Guidance

The Illinois has prepared guidance for sources on the Clean Air Act Permit Program (CAAPP) that is available on the Internet site maintained by the Illinois EPA, <a href="www.epa.state.il.us">www.epa.state.il.us</a>. This guidance includes instructions on applying for a revision or renewal of the CAAPP permit.

Guidance On Revising A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-revising.pdf

Guidance On Renewing A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-renewing.pdf

The application forms prepared by the Illinois EPA for the CAAPP are also available from the Illinois EPA's Internet site:

www.epa.state.il.us/air/caapp/index.html

These CAAPP application forms should also be used by a CAAPP source when it applies for a construction permit. For this purpose, the appropriate CAAPP application forms and other supporting information, should be accompanied by a completed Application For A Construction Permit Form (CAAPP Form-199).

Application For A Construction Permit Form (CAAPP Form-199):

www.epa.state.il.us/air/caapp/199-caapp.pdf

#### I. INTRODUCTION

This source has applied for a Clean Air Act Permit Program (CAAPP) operating permit for its existing operation. The CAAPP is the program established in Illinois for the operating permits for significant stationary sources required by the federal Clean Air Act, as amended in 1990. The conditions in a CAAPP permit are enforceable by both the Illinois Environmental Protection Agency (Illinois EPA) and the USEPA.

Cook County Hospital is located at 1835 West Harrison Street, and the John Stroger, Jr., Hospital of Cook County is located at 1901 West Harrison. The source utilizes ten natural gas and oil fired boilers to generate steam, as well as five distillate fuel oil engines for emergency backup power, and three Ethylene Oxide Sterilizers (ETO) for medical sterilization.

#### II. EMISSION UNITS

Significant emission units at this source are as follows:

Emission		Date	Emission Control
Unit	Description	Constructed	Equipment
В1	Natural Gas Fired Boiler with Fuel Oil Backup (84.5 mmBtu/Hr)	01/1997	Low NO <sub>x</sub> Burners
В2	Natural Gas Fired Boiler with Fuel Oil Backup (84.5 mmBtu/Hr)	01/1997	Low NO <sub>x</sub> Burners
В4	Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)	2001	Low NO <sub>x</sub> Burners
В5	Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)	2001	Low NO <sub>x</sub> Burners
В6	Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)	2001	Low NO <sub>x</sub> Burners
В7	Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)	2001	Low NO <sub>x</sub> Burners
В8	Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)	2001	Low NO <sub>x</sub> Burners
В9	Natural Gas Fired Boiler with Fuel Oil Backup (33 mmBtu/Hr)	2001	Low NO <sub>x</sub> Burners
B10	Natural Gas Fired Boiler (12 mmBtu/Hr)	2003	None
CHILL1	Natural Gas Fired Chiller (12.0 mmBtu/Hr)	2003	None
В3	Natural Gas Fired Boiler with Fuel Oil Backup (83 mmBtu/Hr)	1959	None
ICE 1-5	2000 KW Fuel Oil Fired Engine	2001	None
ETO1-3	Ethylene Oxide Sterilizers	2001	ETO Abator

#### III. EMISSIONS

This source is required to have a CAAPP permit since it is a major source of emissions.

For purposes of fees, the source is allowed the following emissions:

Pollutant	Tons/Year
Volatile Organic Material (VOM)	
Sulfur Dioxide (SO <sub>2</sub> )	0.061
Particulate Matter (PM)	6.97
Nitrogen Oxides (NO <sub>x</sub> )	158.22
HAP, not included in VOM or PM	
Total	165.25

#### IV. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board's emission standards. The Board's emission standards represent the basic requirements for sources in Illinois.

All emission sources in Illinois must comply with the federal New Source Performance Standards (NSPS). The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

All emission sources in Illinois must comply with the federal National Emission Standards for Hazardous Air Pollutants (NESHAP). The Illinois EPA is administering NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.

Because this source is located in the Chicago ozone non-attainment area and emits volatile organic material (VOM), the source must comply with Illinois' Emissions Reduction Market System (ERMS). The ERMS is a market-based program designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as further described in Section 6.0 of the permit.

## V. PROPOSED PERMIT

#### CAAPP

A CAAPP permit contains all conditions that apply to a source and a listing of the applicable state and federal air pollution control regulations that are the origin of the conditions. The permit also contains emission limits and appropriate compliance procedures. The appropriate compliance procedures may include inspections, work practices, monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis.

## Title I

A combined Title I/CAAPP permit contains terms and conditions established by the Illinois EPA pursuant to authority found in Title I

provisions, e.g., 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Notwithstanding the expiration date on the first page of the permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

## VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that this source's permit application meets the standards for issuance of a CAAPP permit. The Illinois EPA is therefore proposing to issue a CAAPP permit, subject to the conditions proposed in the draft permit.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 166.

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